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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,874	09/25/2001	Arun Jayaraman	TRIPP033	9192

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EXAMINER

CHOE, HENRY

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/963,874

Applicant(s)  
Jayaraman et al.

Examiner  
Henry Choe

Art Unit  
2817



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Feb 27, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 19-22, 25, 30-32, 37-42, and 47 is/are rejected.
- 7) ☒ Claim(s) 5-18, 23, 24, 26-29, 33-36, and 43-46 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Sep 25, 2001 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

Art Unit:

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the bank of capacitors recited in claim 5, a first number of transmit band resonators and a second number of receive band resonators and third number of transmit band resonators and a fourth number of receive band resonators recited in claim 6, the feedforward path recites in claim 12, a peak detector recited in claim 15, and transconductive element and an inductive element and a capacitive element recited in claim 22 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit:

3. Claims 1-4, 19-22, 25, 30, 37-40 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Tripathi et al (Fig. 10).

Regarding claims 1, 19, 25, 37, 39 and 47, Tripathi et al (Fig. 10) discloses a signal processing circuit comprising a frequency selective network (1002), an analog-to-digital converter (1004) which is coupled to the frequency selective network (1002), a switching device (1006) which is coupled to the analog to digital converter (1004), and a feedback path (1008).

Regarding claims 2, 3, 20 and 21, the frequency selective network (1002) in Fig. 10 of Tripathi et al includes one transmit band resonator and one receive band resonator (see column 8, lines 64-67) which are configured to maximize a dynamic range associated with the amplifier.

Regarding claims 4 and 22, the resonator inherently includes a transconductive element, an inductive element, and a capacitive element which are well known in the art.

Regarding claims 30, 38 and 40, the limitations recited in the claims are intended use of the invention.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit:

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 31, 32, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Tripathi et al (Fig. 10).

Tripathi et al (Fig. 10) discloses all the limitations in the claims except for that the transmit band is lower than the receive band by about 45 MHZ, transmit band ranges from about 824 MHZ to about 849 MHZ, and the receive band ranges from about 869 MHZ to about 894 MHZ. It would have been obvious in the absence of unexpected results as a mere matter of design choice to choose the specific frequency ranges to obtain the desired frequency capacity based on the desired use since this is a result effective variable.

#### *Allowable Subject Matter*

6. Claims 5-18, 23, 24, 26-29, 33-36 and 43-46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Reasons for Allowance*

7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 5 and 23, the closest prior art of record, Tripathi et al (Fig. 10) does not disclose the following limitations: the capacitive element includes a bank of capacitors. Regarding

Art Unit:

claims 6 and 24, the closest prior art of record, Tripathi et al (Fig. 10) does not disclose the following limitations: the frequency selective network includes a first signal path including a first number of transmit band resonators and a second number of receive band resonators and a second signal path including a third number of transmit band resonators and a fourth number of receive band resonators. Regarding claims 17 and 26, the closest prior art of record, Tripathi et al (Fig. 10) does not disclose the following limitations: a signal generator, a peak detector, and control circuitry. Regarding claim 43, the closest prior art of record, Tripathi et al (Fig. 10) does not disclose the following method steps: selecting a filter which is to be calibrated among the first and second filtering, applying a signal to the selected filter, detecting signal strength, and tuning the selected filter.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent numbers (6,316,992; 4,123,754) are the filter circuits with the frequency selective networks.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Choe whose telephone number is (703) 305-0576.

Application/Control Number: 09/963874

Page 6

Art Unit:

A handwritten signature in black ink, appearing to read "Henry Choe". The signature is fluid and cursive, with the first name "Henry" written in a larger, more prominent script than the last name "Choe".

Name: Henry Choe

Art Unit: 2817

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